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ONE LIBERTY PLACE
1650 MARKET ST, SUITE 4900
PHILADELPHIA, PA 19103

EXAMINER

SHEVIN, MARK L

ART UNIT	PAPER NUMBER
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1733

NOTIFICATION DATE	DELIVERY MODE
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06/09/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary

Application No.

10/587,807

Applicant(s)

MIYATA ET AL.

Examiner

MARK L. SHEVIN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5, 7-10, 12-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5, 7-10, 12-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgement of RCE

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 13th, 2011 has been entered.

Status of Claims

2. Claims 2-5, 7-10, 12-15 and 17-20, filed May 13th, 2011 are pending. Claims 2 and 4 were amended and claims 1, 6, 11, and 16 are cancelled.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. **Claims 2-5, 7-10, 12-15 and 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kimura** (US 5,985,209).

Kimura:

Kimura discloses (col. 2, lines 35-55) a martensitic stainless steel for a line pipe with the composition as shown in the comparative table below. Steel of Kimura's disclosed composition may be formed into seamless pipe or welded pipe such as electric resistance welded steel pipe, UOE steel pipe, or spiral steel pipe (col. 5, lines

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35-41). Line pipe implicitly has a heat-affected zone formed during welding. Lastly, the steel pipes of Kimura's invention are designed to undergo girth welding, to implicitly join pipes together into a welded structure for transferring oil and natural gas (col. 8, lines 32-44).

Element	Instant claims	Kimura	Overlap
C	0 – 0.01	0 – 0.02	0 – 0.01
N	0 – 0.01	0 – 0.07	0 – 0.01
Cr	10 - 14	10 – 14	10 - 14
Ni	4 - 7	0.2 – 7.0	4 – 7
Si	0.05 – 1.0	0 – 0.5	0.05 – 0.5
Mn	0.1 – 2.0	0.2 – 3.0	0.2 – 2.0
P	0 – 0.3	0 – 0.05	0 – 0.05
S	0 – 0.01	0 – 0.005	0 – 0.005
Al	0.001 – 0.10	0 – 0.1	0.001 – 0.1
V	0.02 – 0.10	0 – 0.20	0.02 – 0.10
One or more:	---	---	---
Cu	0 – 4	0 – 2.0	0 – 2.0
Co	0 – 4	n/a (0 – imp)	n/a (0 – imp)
Mo	0 – 4	0.2 – 5.0	0.2 – 4
W	0 – 4	n/a (0 – imp)	n/a (0 – imp)
One or more:	---	---	---
Ti	0 – 0.15	0 – 0.15	0 – 0.15
Nb	0 – 0.10	0 - 0.25	0 – 0.10
Zr	0 – 0.10	0 – 0.15	0 – 0.10
Hf	0 – 0.20	n/a (0 – imp)	n/a (0 – imp)
Ta	0 – 0.20	0 – 0.15	0 – 0.15
Ca	0 – 0.010	0 – 0.006	0 – 0.006
One or more:			
Mg	0 – 0.010	n/a (0 – imp)	n/a (0 – imp)
REM	0 – 0.010	n/a (0 – imp)	n/a (0 – imp)
B	0 – 0.01	n/a (0 – imp)	n/a (0 – imp)
Fe	Balance	Balance	Balance

Regarding claims 2-5, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to select any portion of the claimed ranges, including the claimed ranges, from the overlapping ranges disclosed in Kimura because Kimura finds that the prior art composition in the entire disclosed ranges has a suitable utility and the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). From MPEP § 2144.05: In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). In addition, "[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." *In re Peterson*, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003). Also see, *In re Geisler* 43 USPQ 2d 1365 (Fed. Cir. 1997) and *In re Malagari*, 182 USPQ 549, 554 (CCPA 1974).

With respect to the pipe being "seamless", Kimura taught that his martensitic stainless steel pipes may be seamless (col. 3, lines 10-15 and col. 5, lines 35-41).

With respect to the amendment to claims 2 and 4 adding "and less than or equal to 0.0050% of C_{sol}", Kimura discloses a martensitic stainless steel seamless pipe having overlapping contents of all claimed alloying ranges including C, N, Cr, Ni, Si, Mn, P, S,

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Al, V, Cu, Co, Mo, W, Ti, Nb, Zr, Hf, Ta, Ca, Mg, REM, B, and Fe and it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357,553 O.G. 177., 57 USPQ 1 17, *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those ordinary skilled in the art; see *In re Austin et al.* 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select alloy compositions fulfilling the claimed compositional relationships from the alloy compositional ranges disclosed by Kimura.

With respect to claims 2 and 4 reciting "...and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones...", one of ordinary skill would reasonably expect the steel pipes of Kimura to possess the claimed properties regarding Cr in the HAZ as Kimura discloses steels of substantially similar compositions. Furthermore, Kimura also seeks to retain Cr in the matrix and avoid Cr-carbide formation (col. 4, lines 52-61), and thus maintain corrosion resistance.

Regarding claim 7-10, it would have been obvious to one of ordinary skill in the stainless steel pipe, at the time of the invention, to form a seamless martensitic stainless steel line pipe with the claimed alloying elements in the claimed ranges as Kimura discloses a martensitic stainless steel for line pipe (Abstract, col. 2, lines 5-10, and claim 1) with overlapping ranges of the claimed alloying elements as discussed in the rejections of claims 2-5, *supra*.

Regarding claims 12-15 and 17-20, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of Kimura's invention are designed to undergo girth welding, to implicitly join pipes together into a welded structure for transferring oil and natural gas (col. 8, lines 32-44) and one of ordinary skill would have welded pipes together to form such a pipeline for transporting oil and/or natural gas from Kimura. Line pipes are a welded structure and they are implicitly welded together by girth welding to form pipeline for oil/natural gas transport.

4. **Claims 2-5, 7-10, 12-15 and 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **JP '604** (JP 2002-105604 – Full English Translation).

JP '604:

JP '604 discloses a martensitic stainless steel pipe for linepipe having excellent corrosion resistance and weldability (Abstract). The steel pipes of JP '604 may be in the form in seamless steel tubes, welded steel pipes, electroseamed pipes, UOE steel pipe, or spiral weld pipes (para 0024).

JP '604 discloses (para 0011-0022) overlapping composition ranges as shown in the comparative table below:

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Element	Instant claims	JP '604	Overlap
C	0 – 0.01	0 – 0.02	0 – 0.01
N	0 – 0.01	0 – 0.07	0 – 0.01
Cr	10 - 14	10 - 14	10 – 14
Ni	4 - 7	0.2 – 7.0	4 – 7
Si	0.05 – 1.0	0 – 1.0	0.05 – 1.0
Mn	0.1 – 2.0	0.2 – 3.0	0.2 – 2.0
P	0 – 0.3	0 – 0.05	0 – 0.05
S	0 – 0.01	0 – 0.005	0 – 0.005
Al	0.001 – 0.10	0 – 0.1	0.001 – 0.1
V	0.02 – 0.10	0 – 0.2	0.02 – 0.10
One or more:	---	---	---
Cu	0 – 4	n/a (0 – imp)	n/a (0 – imp)
Co	0 – 4	n/a (0 – imp)	n/a (0 – imp)
Mo	0 – 4	0.2 – 3.0	0.2 – 3.0
W	0 – 4	n/a (0 – imp)	n/a (0 – imp)
One or more:	---	---	---
Ti	0 – 0.15	0 – 0.15	0 – 0.15
Nb	0 – 0.10	0 – 0.2	0 – 0.10
Zr	0 – 0.10	0 – 0.15	0 – 0.10
Hf	0 – 0.20	n/a (0 – imp)	n/a (0 – imp)
Ta	0 – 0.20	0 – 0.15	0 – 0.15
Ca	0 – 0.010	0 – 0.006	0 – 0.006
One or more:	---	---	---
Mg	0 – 0.010	n/a (0 – imp)	n/a (0 – imp)
REM	0 – 0.010	n/a (0 – imp)	n/a (0 – imp)
B	0 – 0.01	n/a (0 – imp)	n/a (0 – imp)
Fe	Balance	Balance	Balance

Regarding claims 2-5, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to select any portion of the claimed ranges, including the claimed ranges, from the overlapping ranges disclosed in JP '604 for the same reasons as stated in the rejections over Kimura above, see MPEP § 2144.05.

With respect to the pipe being "seamless", JP '604 discloses that the steel pipes may be manufactured in the form of seamless pipe (para 0024).

With respect to the amendments to claims 2 and 4 adding "and less than or equal to 0.0050% of C_{sol} ," this limitation is addressed in the same way as stated in the rejections above over Kimura.

With respect to claims 2 and 4 reciting "...and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones...", one of ordinary skill would reasonably expect the steel pipes of JP '604 to possess the claimed properties regarding Cr in the HAZ as JP '604 discloses steels of substantially similar compositions and furthermore produces the final steel pipes by a substantially similar process (para 0026 and 0027) as compared to that of the instant invention (instant specification para 0064-0065) including heating the tube after forming to a temperature above the Ac3 point, cooling at faster than air cooling, and then tempering below Ac1.

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established (see MPEP 2112, section V, para 1).

Regarding claim 7-10, it would have been obvious to one of ordinary skill in the stainless steel pipe, at the time of the invention, to form a seamless martensitic stainless steel line pipe with the claimed alloying elements in the claimed ranges as JP '604 discloses a martensitic stainless steel for line pipe with overlapping ranges of the claimed alloying elements as discussed in the rejections of claims 2-5, *supra*.

Regarding claims 12-15 and 17-20, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of JP '604 are designed for use as line pipe, which is are designed to undergo girth (circumferential) welding, to implicitly join pipes together into a welded structure for transferring oil and natural gas (para 0001-0003 and 0031) and one of ordinary skill would have welded pipes together to form such a pipeline for transporting oil and/or natural gas from JP '604. Line pipes are a welded structure and they are implicitly welded together by girth welding to form pipeline for oil/natural gas transport.

Double Patenting

5. **Claims 2-5, 7-10, 12-15, and 17-20** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 and 8 (latest claims in the preliminary amendment filed December 17th, 2009 and elected February 7th, 2011 as part of Group I) of copending Application No. 12/665,097 (US '097).

US '097 recites (claims 1-3 and 8) a martensitic stainless steel seamless pipe for oil country tubular goods with a composition as shown in the comparative table below:

Element	Instant claims	US '097	Overlap
C	0 – 0.01	0 – 0.01	0 – 0.01
N	0 – 0.01	0 – 0.05	0 – 0.01
Cr	10 - 14	10 – 14	10 – 14
Ni	4 - 7	0.1 – 4.0	4.0
Si	0.05 – 1.0	0 – 1.0	0.05 – 1.0
Mn	0.1 – 2.0	0.1 – 2.0	0.1 – 2.0
P	0 – 0.3	0 – 0.020	0 – 0.02

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S	0 – 0.01	0 – impurity	0 – impurity
Al	0.001 – 0.10	0 – 0.10	0.001 – 0.10
V	0.02 – 0.10	0 – 0.10	0.02 – 0.10
One or more:	---	---	---
Cu	0 – 4	0 – 2.0	0 – 2.0
Co	0 – 4	n/a (0 – imp)	n/a (0 – imp)
Mo	0 – 4	0 – 2.0	0 – 2.0
W	0 – 4	n/a (0 – imp)	n/a (0 – imp)
One or more:	---	---	---
Ti	0 – 0.15	0 – 0.10	0 – 0.10
Nb	0 – 0.10	0 – 0.10	0 – 0.10
Zr	0 – 0.10	n/a (0 – imp)	n/a (0 – imp)
Hf	0 – 0.20	n/a (0 – imp)	n/a (0 – imp)
Ta	0 – 0.20	n/a (0 – imp)	n/a (0 – imp)
Ca	0 – 0.010	n/a (0 – imp)	n/a (0 – imp)
One or more:	---	---	---
Mg	0 – 0.010	n/a (0 – imp)	n/a (0 – imp)
REM	0 – 0.010	n/a (0 – imp)	n/a (0 – imp)
B	0 – 0.01	n/a (0 – imp)	n/a (0 – imp)
Fe	Balance	Balance	Balance

Regarding claims 2-5, these claims are rejected for the same reasons as stated in the rejection of claim 2-5 over Kimura, *supra*, see MPEP 2144.05. With respect to the recitation in claims 2 and 4 of “...and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones...”, these amendments are rejected are obvious for the same reasons as stated for the ODP rejections over US ‘996 above (see MPEP 2112, section V, para 1).

With respect to the amendments to claims 2 and 4 adding “and less than or equal to 0.0050% of C_{sol},” this limitation is addressed in the same way as stated in the rejections above over Kimura.

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Regarding claims 7-10, it would have been obvious to one of ordinary skill in the stainless steel pipe, at the time of the invention, to form a seamless martensitic stainless steel line pipe with the claimed alloying elements in the claimed ranges as US '097 discloses a martensitic stainless steel seamless pipe for oil country tubular goods which suggests the use of such a pipe to transport oil, hence motivation for producing a line pipe.

Regarding claims 12-15 and 17-20, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of US '097 are implicitly designed to be welded into line pipe to thus transport oil.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. **Claims 2-5, 7-10, 12-15, and 17-20** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 7,842,141 (**US '141**). Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons:

US '141 recites (claims 1-5) a corrosion-resistant seamless stainless steel pipe for oil country tubular goods having a steel composition as shown in the comparative table below:

Element	Instant claims	US '141	Overlap
C	0 – 0.01	0 – 0.05	0 – 0.01
N	0 – 0.01	0 – 0.5	0 – 0.01
Cr	10 – 14	14 – 18	14

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Ni	4 – 7	5 – 8	5 – 7
Si	0.05 – 1.0	0 – 0.50	0.05 – 0.50
Mn	0.1 – 2.0	0.2 – 1.8	0.2 – 1.8
P	0 – 0.3	0 – 0.03	0 – 0.03
S	0 – 0.01	0 – 0.005	0 – 0.005
Al	0.001 – 0.10	0 – 0.05	0.001 – 0.05
V	0.02 – 0.10	0.03 – 0.20	0.03 – 0.10
One or more:	---	---	---
Cu	0 – 4	0.5 – 3.5	0.5 – 3.5
Co	0 – 4	n/a (0-imp)	n/a (0-imp)
Mo	0 – 4	1.5 – 3.5	1.5 – 3.5
W	0 – 4	0 – 3.0	0 – 3.0
One or more:	---	---	---
Ti	0 – 0.15	0 – 0.30	0 – 0.15
Nb	0 – 0.10	0 – 0.20	0 – 0.10
Zr	0 – 0.10	0 – 0.20	0 – 0.10
Hf	0 – 0.20	n/a (0-imp)	n/a (0-imp)
Ta	0 – 0.20	n/a (0-imp)	n/a (0-imp)
Ca	0 – 0.010	0.0005 – 0.01	0.0005 – 0.01
One or more:	---	---	---
Mg	0 – 0.010	n/a (0-imp)	n/a (0-imp)
REM	0 – 0.010	n/a (0-imp)	n/a (0-imp)
B	0 – 0.01	0 – 0.01	0 – 0.01
Fe	Balance	Balance	Balance

The stainless steel seamless pipes of US '141 are considered to be martensitic as they are comprised of a majority of martensite phase (see final clause of claim 1 and claim 4).

Regarding claims 2-5, these claims are rejected for the same reasons as stated in the rejection of claim 2-5 over Kimura, *supra*, see MPEP 2144.05. With respect to the recitation in claims 2 and 4 of "...and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones...", these amendments are

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rejected are obvious for the same reasons as stated for the ODP rejections over US '996 above (see MPEP 2112, section V, para 1).

With respect to the amendments to claims 2 and 4 adding “and less than or equal to 0.0050% of C_{sol} ,” this limitation is addressed in the same way as stated in the rejections above over Kimura.

Regarding claims 7-10, it would have been obvious to one of ordinary skill in the stainless steel pipe, at the time of the invention, to form a seamless martensitic stainless steel line pipe with the claimed alloying elements in the claimed ranges as US '141 discloses a martensitic stainless steel seamless pipe for oil country tubular goods which suggests the use of such a pipe to transport oil, hence motivation for producing a line pipe.

Regarding claims 12-15 and 17-20, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of US '141 are implicitly designed to be welded into line pipe to thus transport oil.

Response to Applicant's Arguments:

7. Applicant's arguments filed May 13th, 2011 have been fully considered but they are not persuasive.

Applicants assert (p. 6, para 4 to p.8, para 1 with respect to Kimura and p. 8, para 2 and Comparative Tables at the end of the remarks) that neither Kimura nor JP '604 discloses martensitic stainless steel seamless pipes having the claimed content of

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C_{sol} less than or equal to 0.0050% and that inherency of the C_{sol} content in Kimura and JP '604 cannot be established as all 40 examples of Kimura and all 14 examples of JP '604 have C_{sol} contents outside the claimed range.

Applicants further assert (p. 8, para 3) that Applicants have established an unexpected phenomenon associated with a unique combination of C, N, and V regarding the resistance to IGSCC (intergranular stress corrosion cracking) and producing steels at a lower cost.

In response, these arguments are not persuasive because while Applicants have stated that they have determined that the amount of C_{sol} in the prior art is different than that of the claimed invention, Applicants have provided no probative evidence in support of these arguments.

However the Examiner suggests that Applicants submit the results from the Comparative Tables in the form of a signed 1.132 declaration. MPEP 716.0(c) states that objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes evidence of unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant. Furthermore, the arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results, commercial success, solution of a long-felt

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need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant.

The reason for requiring evidence in declaration or affidavit form is to obtain the assurances that any statements or representations made are correct, as provided by 35 U.S.C. 25 and 18 U.S.C. 1001

Furthermore Applicants have only alleged unexpected results but in order to introduce evidence of unexpected results as a secondary consideration to be weighed in the 103(a) determination Applicants must present evidence that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance." *Ex parte Gelles*, 22 USPQ2d 1318, 1319, MPEP 716.02(b). In this case, Applicants have not explained the particular reason or scientific basis for what the unexpected phenomenon actually is and how the Comparative Tables in the remarks establish unexpected results.

Conclusion

-- Claims 2-5, 7-10, 12-15 and 17-20 are rejected

-- No claims are allowed

The rejections above rely on the references for all the teachings expressed in the texts of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the texts of the references. To emphasize certain aspects of the prior art, only specific portions of the texts have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since other sections of the same reference and/or various combinations of the cited references may be relied on in future rejections in view of amendments.

All recited limitations in the instant claims have been met by the rejections as set forth above. Applicant is reminded that when amendment and/or revision is required,

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applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121; 37 C.F.R. Part §41.37 (c)(1)(v); MPEP §714.02; and MPEP §2411.01(B).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shevin whose telephone number is (571) 270-3588 and fax number is (571) 270-4588. The examiner can normally be reached on Monday-Friday, 8:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King, can be reached at (571) 272-1244. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

/Mark L. Shevin/
Examiner, Art Unit 1733

June 1st, 2011
10-587,807

/George Wyszomierski/
Primary Examiner
Art Unit 1733